

## Course Descriptions None 2021-2022

Course Title Planning and Scheduling  
Course Code EBC4149  
ECTS Credits 6,5  
Assessment Whole/Half Grades

| Period | Start     | End        | Mon | Tue | Wed | Thu | Fri |
|--------|-----------|------------|-----|-----|-----|-----|-----|
| 1      | 30-8-2021 | 15-10-2021 | C   |     |     |     |     |

Level Advanced

Coordinator Tjark Vredevelde For more information:t.vredevelde@maastrichtuniversity.nl

Language of instruction English

Goals In this course students will learn the state-of-the-art techniques for a broad variety of scheduling problems. In particular, it is expected that after this course students will be able to construct mathematical models for the basic problems, classify them, address the questions on computational complexity of the problems, and apply standard algorithmic techniques to solve the problems.

Description This is a course track for students interested in Operations Research (OR) of the Business Research Master.

The course addresses the issues of

\* Modelling production and planning problems as combinatorial optimisation problems;

\* Classification of scheduling environments and objectives;

\* Tractability of scheduling problems;

\* Solution methods for scheduling problems, e.g., combinatorial, LP-, and DP-based techniques, including exact algorithms, approximations and fast heuristics.

Literature

Scientific articles.

Michael Pinedo, "Scheduling: Theory, Algorithms, and System" (recommended not obligatory).

Prerequisites

Good working knowledge of algorithms and optimisation techniques.

Teaching methods

PBL / Presentation / Lecture / Assignment

Assessment methods

Final Paper / Participation / Written Exam / Oral Exam / Assignment / Presentation

Evaluation in previous academic year

For the complete evaluation of this course please click <http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM>

This course belongs to the following programme / specialisation

|  |                           |
|--|---------------------------|
| Master Business Research - No specialisation   | Year 2 Free Elective(s)   |
| Master Business Research - Operations Research | Year 1 Elective Course(s) |
| Master Business Research - Operations Research | Year 2 Elective Course(s) |